UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,055	10/04/2005	Kornelis Meinds	NL 030343	6176

24737 7590 06/27/2007
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
LA BARR, EDWARD T	
ART UNIT	**PAPER NUMBER**
2609	

MAIL DATE	DELIVERY MODE
06/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,055	MEINDS ET AL.	
	Examiner	Art Unit	
	Edward T. La Barr	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-13 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 10/4/2005 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
  (1) Field of the Invention.
  (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1-13 of this application conflict with **claims 1-12 and 14 of Application No. 10/572,845**. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Max ("Polygon-based post-process motion blur" The Visual Computer, no 6, 1990, pages 308-314), cited by applicant.

Regarding Claim 1:

Max discloses:

A method of generating motion blur in a graphics system, the method comprising:

receiving (RA; RSS; RTS) geometrical information (GI) defining a shape of a graphics primitive (SGP,TGP) (See page 309, col. 1, bottom paragraph),

providing (DIG) displacement information (DI) determining a displacement vector (SDV;TDV) defining a direction of motion of the graphics primitive (SGP; TGP) (See page 310, col. 1, paragraph 2),

sampling (RA; RSS; RTS) the graphics primitive (SGP; TGP) in the direction indicated by the displacement vector (SDV;TDV) to obtain input samples (RPi; RIi) (See page 310, col. 1, paragraph 2), and

one dimensional spatial filtering (ODF) of the input samples (RPi; R/i) to obtain temporal pre filtering (See page 310, col. 1, paragraph 2).

Regarding Claim 13:

Max discloses:

A graphics computer system comprising:

means for receiving (RA; RSS; RTS) geometrical information (GO defining a shape of a graphics primitive (SGP,TGP) (See page 309, col. 1, bottom paragraph),

means for providing (DIG) displacement information (DI) determining a displacement vector (SDV;TDV) defining a direction of motion of the graphics primitive (SGP; TGP) (See page 310, col. 1, top),

means for sampling (RA; RSS; RTS) the graphics primitive (SGP; TGP) in the direction indicated by the displacement vector (SDV;TDV) to obtain input samples (RPi; RIi) (See page 310, col. 1, paragraph 2), and

means for one dimensional spatial filtering (ODF) of the input samples (RPi; RIi) to obtain temporal pre-filtering (See page 310, col. 1, paragraph 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Max ("Polygon-based post-process motion blur" The Visual Computer, no 6, 1990, pages 308-314) as applied to claim 1 above, and further in view of Max et al. ("A Two-and-a-Half-D Motion-Blur Algorithm" Proceedings of Siggraph '85, Vol. 19, no. 3, July 22, 1985 pages 85-93), cited by applicant.

Regarding Claim 2:

Max Discloses:

A method as claimed in claim 1, wherein

the step of providing (DIG) displacement information (DI) further defines an amount of motion of the graphics primitive (SGP; TGP) (See Max page 309, col. 1, bottom paragraph).

Max does not disclose:

the step of one dimensional spatial filtering (ODF) is arranged to obtain the temporal pre-filtering with a size of a filter footprint (FP) that depends on the magnitude of the displacement vector (SDV;TDV).

However, Max et al discloses the step of one dimensional spatial filtering (ODF) is arranged to obtain the temporal pre-filtering with a size of a filter footprint (FP) that depends on the magnitude of the displacement vector (SDV;TDV) (See Max et al page 88 "Step Two. Blurring").

It would have been obvious to one skilled in the art at the time of invention to use a filter footprint that depends on the magnitude of displacement.

It was known in the art at the time of invention that varying the filter footprint with displacement magnitude has the effect of overcoming the strobing effects in animation (See Max et al page 88 "Step Two. Blurring").

Claims 6, 7, 8/6, 8/7, 9, 10, 11, 12/9 and 12/10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Max ("Polygon-based post-process motion blur" The Visual Computer, no 6, 1990, pages 308-314), cited by applicant, as applied to claim 1 above, and further in view of Meinds et al ("Resample Hardware for 3D Graphics" Proceedings of the ACM SIGGRAPH/EUROGRAPHICS conference on graphics hardware; Saarbrucken, Germany, 2002, Pages 17-26).

Regarding Claim 6:

Meinds et al disclose:

A method as claimed in claim 1, wherein

the graphics system is arranged for displaying pixels (Pi) having a pixel intensity (Pli) on a display screen (DS), the pixels (Pi) being positioned on pixel positions (x,y) in a screen space (SSP) (See Section 2.1 and Figure 1),

the method further comprises an inverse texture mapping (ITM) receiving coordinates of the resampled pixels (RPi) to supply intensities (Rip) of the resampled pixels 10 (RPi) (See Section 2.1),

the step of one dimensional spatial filtering (ODF) comprises averaging (AV) of the intensities (Rip) of the resampled pixels (RPi) to obtain averaged intensities (ARIp) in

accordance with a weighting function (WF) (See e.g. Section 2.1, 3.2, Figure 1 and Figure 7), and

the method further comprises a resampling (RSA) of the averaged intensities 15 (ARIp) of the resampled pixels (RPi) to obtain the pixel intensities (PIi) (See Section 2.1 and Figure 1).

Meinds et al. do not disclose:

the step of sampling (RA; RSS; RTS) is adapted for sampling (RSS) in the screen space (SSP) in a direction of a screen displacement vector (SDV) being the displacement vector mapped to the screen space (SSP) to obtain resampled pixels (R.Pi).

However, Max et al teach sampling in the direction of a displacement vector to obtain resampled pixels (See e.g. Max page 310, col. 1, first full paragraph).

It would have been obvious to one skilled in the art at the time of invention to sample the screen space in a direction of a displacement vector to obtain resampled pixels.

It was known in the art at the time of invention that this skewing takes care of one dimension worth of area averaging leaving the values to be blurred in a single row or column (See e.g. Max page 310, col. 1, first full paragraph).

Regarding Claim 7:

Meinds et al. disclose:

Method as claimed in claim 1, wherein

the graphics system is arranged for displaying pixels (Pi) having a pixel intensity (PIi) on a display screen, the pixels (Pi) being positioned on pixel positions (x,y) in a screen space (SSP) (See section 2.2 and Figure 3),

the method further comprises providing appearance information (TA, TB) defining an appearance of the graphics primitive (SGP) in the screen space (SSP) by defining texel intensities (Ti) in a texture space (TSP) (See section 2.2 and Figure 3),

the method further comprising interpolating (IP) the texel intensities (Ti) to obtain intensities (RIi) of the resampled texels (RTi) (See section 2.2 and Figure 3),

the step of one dimensional spatial filtering (ODF) comprises averaging (AV) the intensities (Rii) of the resampled texels (RTi) in accordance with a weighting function (WF) to obtain filtered texels (FTi) (See e.g. Section 2.2, 3.2, Figure 3 and Figure 7),

the method further comprises:

mapping (MSP) the filtered texels (FTi) of the graphics primitive (TGP) in the texture space (TSP) to the screen space (SSP) to obtain mapped texels (MTi)(See e.g. Section 3.2 and Figure 4),

determining (CAL) intensity contributions from a mapped texel (MTi) to all the pixels (Pi) of which a corresponding pre-filter footprint (PFP) of a pre-filter (PRF) covers the mapped texel (MTi), the contribution being determined by an amplitude characteristic of the pre-filter (PRF) (See e.g. Section 2.2, 3.2, Figure 3 and Figure 7), and

summing (CAL) the intensity contributions of the mapped texel (MTi) for each pixel (Pi) (See e.g. Section 2.2, 3.2, Figure 3 and Figure 7).

Meinds et al. do not disclose:

the step of sampling (R.A; RSS; RTS) is adapted for sampling (RTS) in the texel space (TSP) in a direction of a texel displacement vector (TDV) being the displacement vector mapped to the texel space (TSP) to obtain resampled texels (RTi),

However, Max et al teach sampling a space in the direction of a displacement vector to obtain resampled pixels (See e.g. Max page 310, col. 1, first full paragraph).

It would have been obvious to one skilled in the art at the time of invention to sample the texel space in a direction of a displacement vector to obtain resampled pixels.

It was known in the art at the time of invention that this skewing takes care of one dimension worth of area averaging leaving the values to be blurred in a single row or column (See e.g. Max page 310, col. 1, first full paragraph).

Regarding Claim 8/6:

Max et al. disclose:

A method as claimed in claim 6, wherein

at least a direction of the displacement vector (SDV;TDV) of the graphics primitive (GP) is an average of directions of displacement vectors of vertices of the graphics primitive (See page 309 2nd and 3rd paragraphs).

It would have been obvious to one skilled in the art at the time of invention to compute a single blur direction for each primitive by averaging the motion directions for each of its vertices.

It was known in the art at the time of invention that reducing the displacement of a graphics primitive to a single vector has the advantage of facilitating blurring in one dimension only (See e.g. Max page 310 col.1 2nd full paragraph and page 311 “Method 1”).

Regarding Claim 8/7:

A method as claimed in claim 7, wherein

at least a direction of the displacement vector (SDV;TDV) of the graphics primitive (GP) is an average of directions of displacement vectors of vertices of the graphics primitive (See page 309 2nd and 3rd paragraphs).

It would have been obvious to one skilled in the art at the time of invention to compute a single blur direction for each primitive by averaging the motion directions for each of its vertices.

It was known in the art at the time of invention that reducing the displacement of a graphics primitive to a single vector has the advantage of facilitating blurring in one dimension only (See e.g. Max page 310 col.1 2nd full paragraph and page 311 "Method 1").

Regarding Claim 9:

Meinds discloses:

A method as claimed in claim 6, wherein the step of one dimensional filtering (ODF) comprises:

distributing, in the screen space (SSP), the intensities (Rip) of the resampled pixels (RPi) in a direction of the displacement vector (SDV) over a distance determined by a magnitude of the displacement vector (SDV) to obtain distributed intensities (DIi) (Meinds Section 3.2 and Figure 7), and

averaging overlapping distributed intensities (DIi) of different pixels (Pi) to obtain a piece-wise constant signal being the averaged intensities (ARPi) (Meinds Section 3.2 and Figure 7).

It would have been obvious to one skilled in the art at the time of invention to conduct one dimensional filtering by distributing the intensities of the resampled pixels in the direction of displacement of the primitive over a distance determined by the magnitude of the displacement and to average overlapping distributed intensities of different pixels to obtain a piece-wise constant signal.

It was known in the art at the time of invention that distributing the intensities of resampled elements in the direction of displacement of the primitive over a distance determined by the magnitude of the displacement has the advantage of simulating a long persistence of vision or a normal movie camera shutter which is open only a portion of the interval between the frames (See Max P 311, paragraph entitled "Blurring polygonal objects") and that a piece-wise constant signal has the advantage that exact convolution with the prefilter function is easy (See Meinds Section 3.2).

Regarding Claim 10:

Meinds discloses:

A method as claimed in claim 7, wherein the step of one dimensional filtering (ODF) comprises:

distributing, in the texture space (TSP), the intensities. (RIi) of the resampled texels (RTi) in a direction of the displacement vector (TDV) over a distance determined by a

magnitude of the displacement vector (TDV) to obtain distributed intensities CI'DIi) (Meinds Section 3.2 and Figure 7), and

averaging overlapping distributed intensities (TDIi) of different resampled texels (KTi) to obtain a piece-wise constant signal being the filtered texels (FTi) (Meinds Section 3.2 and Figure 7).

It would have been obvious to one skilled in the art at the time of invention to conduct one dimensional filtering by distributing the intensities of the resampled texels in the direction of displacement of the primitive over a distance determined by the magnitude of the displacement and to average overlapping distributed intensities of different texels to obtain a piece-wise constant signal.

It was known in the art at the time of invention that distributing the intensities of resampled elements in the direction of displacement of the primitive over a distance determined by the magnitude of the displacement has the advantage of simulating a long persistence of vision or a normal movie camera shutter which is open only a portion of the interval between the frames (See Max P 311, paragraph entitled "Blurring polygonal objects") and that a piece-wise constant signal has the advantage that exact convolution with the prefilter function is easy (See Meinds Section 3.2).

Regarding Claim 11:

Meinds discloses:

A method as claimed in claim 7, wherein

the step of one dimensional spatial filtering (ODF) is arranged for applying a weighted averaging function (WF) during at least one frame-to-frame interval (See Meinds sections 3.1 and 3.2).

It would have been obvious to one skilled in the art at the time of invention to arrange one dimensional spatial filtering to apply a weighted averaging function during at least one frame-to-frame interval.

It was known in the art at the time of invention that applying a weighting function over a shutter-open interval has the effect of producing motion blur (See e.g. Max et al. page 85 1st full paragraph).

Regarding Claim 12/9:

A method as claimed in claim 9, wherein the distance is rounded to a multiple of the distance (DIS) between resampled texels (RTi) (See Meinds Section 3.1 and Section 3.3).

It would have been obvious to one skilled in the art at the time of invention to round the distance to a multiple of the distance between resampled texels (See Meinds Section 3.1 and Section 3.3).

It was known in the art at the time of invention that rounding the distance has the advantage of removing DC ripple by ameliorating the spatial variance of the sum of the weights of the elements (See Meinds Section 3.1) and ensuring that texels close to the edge of the primitive only contribute to the signal within the primitive (See Meinds Section 3.3).

Regarding Claim 12/10:

A method as claimed in claim 10, wherein the distance is rounded to a multiple of the distance (DIS) between resampled texels (RTi).

It would have been obvious to one skilled in the art at the time of invention to round the distance to a multiple of the distance between resampled texels (See Meinds Section 3.1).

It was known in the art at the time of invention that rounding the distance has the advantage of removing DC ripple by ameliorating the spatial variance of the sum of the weights of the elements (See Meinds Section 3.1) and ensuring that texels close to the edge of the primitive only contribute to the signal within the primitive (See Meinds Section 3.3).

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Max ("Polygon-based post-process motion blur" The Visual Computer, no 6, 1990, pages 308-314), cited by applicant, as applied to claim 1 above, and further in view of Nakagawa (US Pat. No. 5982,388).

Regarding Claim 3:

Nakagawa discloses:

A method as claimed in claim 1, wherein

the displacement vector (SDV;TDV) is supplied by a 2D or a 3D application (See col. 8 lines 60-64).

It would have been obvious to one skilled in the art at the time of invention to source the displacement vector from a 2D or 3D application.

It was known in the art at the time of invention that sourcing the displacement information from another program has the advantage of enabling a scene to be modified during execution (See col. 1 lines 50-56).

Regarding Claim 4:

Nakagawa discloses:

A method as claimed in claim 1, wherein

the step of providing (DIG) displacement information (DI) receives a model-view transformation matrix from a 2D or a 3D application, said matrix defining the position and orientation of the graphics primitive (SGP; TGP) of a previous frame (See Nakagawa col. 5 line 53 – col. 6 line 6See also, Max page 309, col. 1, bottom paragraph, and Max et al page 87 col. 2, where the model-view transformation is skew).

It would have been obvious to one skilled in the art at the time of invention to provide displacement information via a transformation matrix defining the position and orientation of the primitive of the previous frame.

It was known in the art at the time of invention that providing displacement via a transformation matrix defining the position and orientation of the primitive of the previous frame has the advantage of enabling combination of the object coordinate system on the high-order coordinate system for each frame (See col. 5 lines 61-64).

Regarding Claim 5.

Nakagawa discloses:

A method as claimed in claim 1, wherein

the step of providing (DIG) displacement information (DI) buffers a position and an orientation of the graphics primitive (SGP; TGP) of a previous frame to calculate the displacement vector (SDV;TDV') (See Nakagawa col. 6, lines 37-41 and col. 8 lines 9-13; See also Max page 309, col. 2, paragraph 1).

It would have been obvious to one skilled in the art at the time of invention to buffer position and orientation of a previous frame to calculate displacement.

It was known in the art at the time of invention that calculating the displacement via buffering of the position and orientation of a previous frame has the advantage of enabling a scene to be modified during execution (See col. 1 lines 50-56).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward T. La Barr whose telephone number is (571) 270-3237. The examiner can normally be reached on Monday-Friday, 9:00 a.m - 5:00 p.m., Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on (571) 272-5026. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ETL

TUAN HO
PRIMARY EXAMINER